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ecology and environment, inc.

160 SPEAR STREET, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415/777-2811

International Specialists in the Environment

MEMORANDUM

TO: Rachel Loftin, EPA Region IX

FROM: Patty Cook, Ecology and Environment, Inc. PC for PC

DATE: November 4, 1992

SUBJECT: Completed Work, Work Assignment No. 20-18-9J00

CC: Lisa Nelson, EPA WAM
Wenona Garside, EPA Contract Officer
Travis Cain, EPA Project Officer

Attached is the following completed:

PA____ SI____ EPI PA____ PA Review____ SI Review X

NPL Prioritization____ SWIFT PA____ SWIFT SI____

Other_____

Site Name: Astroplate Incorporated

EPA ID #: AZD981424468

City, County: Phoenix, Maricopa

State Recommendation: No Further Remedial Action Planned (NFRAP)
(for Reviews only)

FOR EPA USE ONLY

CERCLIS Lead: State | # SI-1 Completed | NFA-SSA | 11-25-92

jj/astro/cwm-trans

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City, County: Phoenix, Maricopa

State Recommendation: No Further Remedial Action Planned (NFRAP)
(for Reviews only)

FOR EPA USE ONLY

CERCLIS Lead: State ✓ | # SI-1 Completed ✓ | NFRAP ✓ | 11-25-92 ✓

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160 SPEAR STREET, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415/777-2811

International Specialists in the Environment

rec'd 11/4/92 fv

SITE INSPECTION REVIEW

SUBMITTED TO: Rachel Loftin, EPA Region IX Site Assessment Manager

PREPARED BY: James M. James, Ecology and Environment, Inc. jmj

DATE: November 4, 1992

SITE: Astroplate Incorporated, prepared by Mike Fulton of the Arizona Department of Environmental Quality (ADEQ), dated July 20, 1992

EPA ID#: AZD981424468

E & E REVIEW/CONCURRENCE: Karen Sadd 11/4/92

RCRA STATUS

X Generator ___ Small Quantity Generator ___ Transporter

___ TSD ___ Not Listed in RCRA Database

HRS CONSIDERATIONS

- Although soil gas analyses indicate that on-site sources of contamination may exist, the contaminants found at the highest concentrations do not appear to be the same as those found in nearby groundwater wells;
- Surface and subsurface soil analyses did not confirm presence of volatile organic compounds;
- Known active drinking water wells are located more than 0.5 miles from the site;
- The nearest surface water is located 4 miles from the site; and
- Known soils contamination is covered by gravel, thereby reducing the potential for a release to air, and is not readily accessible to the public.

COMMENTS

The author states that wells in the area are contaminated with a variety of volatile organic compounds (VOCs), but does not indicate which wells are or were used for drinking water supplies. Only trichloroethene (TCE) is reported in nearby groundwater wells. The nearest downgradient (southwest) drinking water well identified in report, City of Phoenix well 100, is apparently not contaminated. It is not clear from the data presented whether or not analyses for 1,1,1-trichloroethane (TCA) were performed for well 100.

The sampling results revealed elevated levels of VOCs in soil gas on site. Surface and subsurface soil analyses did not confirm the presence of these compounds. It should be noted that the detection limits used for the soil analyses were for Routine Analytical Services (RAS) analyses. Lower detection limits can be requested. There is also a potential that performing soil gas collection prior to collecting soil samples may "strip" the soils of VOCs resulting in lower concentrations in the soil samples. Sampling soils beneath the process area or clarifiers may also have been appropriate. It should be noted that the presentation of analytical results was exemplary.

The author evaluates process tanks on site as sources of contamination. With regard to the HRS waste quantity, the process tanks should not be evaluated, because they are not wastes, unless evidence suggests otherwise. In addition, due to the documented metals contamination on site, a containment value of 10 should be assigned for the groundwater pathway. The mobility assigned to cadmium should be 1, resulting in a toxicity/mobility factor of 10,000 and a waste characteristics value of 18.

The estimated depth to groundwater cited in the scores sheets (100 feet) does not correspond to that provided in the SI (130 feet). The estimated hydraulic conductivity in the score sheets (10^{-1} to 10^{-2} cm/sec) does not correspond with that provided in the SI (10^{-4} cm/sec).

Within the score sheets, the potential population value for the groundwater pathway should be rounded to the nearest integer if the value is greater than 1, i.e. 455.7 should be rounded to 456. In addition, note that to properly calculate the apportioned populations for City of Phoenix wells, actual pumpage or capacity information for specific wells would be required. The information presented in this report regarding the population served, proportion of groundwater used, and total number of wells for the City of Phoenix system differs from the information provided for the AZ Plasma Welding site PA, dated July 29, 1992 and the Southern Pacific Transportation Company SI dated August 6, 1992. Also, the nearest well cited in the score sheets is a monitoring well. For the nearest well factor, the evaluator must consider only drinking water wells with contamination which is attributable to the site or active drinking water wells or standby wells which are used to supply drinking water at least once every year (HRS section 3.3.1).

For the soil exposure pathway, because the hazardous constituent quantity is not adequately determined, a default waste quantity value of 10 should

be used when the default value is greater than that calculated using known data. The resulting waste characteristics value for the soil exposure pathway should be 18. The explanation for not scoring the air pathway is not adequate. Under certain circumstances, sites can score quite high based upon the potential to release to air.

EPA RECOMMENDATION

	Initial	Date
No Further Remedial Action Planned under CERCLA	[signature]	11.25.92
Higher-Priority for Further Site Assessment		
Lower-Priority for Further Site Assessment		
Defer to Other Authority (e.g., RCRA, TSCA, NRC)		

Notes: